



Introduction to the Clean Water Act And Water Quality Regulation

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Clean Water Act – some history

- Deteriorating water conditions until nadir during early 20th century and World War II
 - Viewed as a public health concern (cholera)
 - State regulation by 1930s, but weak
 - Dramatic water pollution problems in urban rivers and lakes
- 1965 – federal Water Quality Act
 - Reliance on states for water quality standards and enforcement
 - Failed on both counts (less than 1/3 of industrial facilities treated wastes before discharges)



Legislative Response

- Rivers & Harbors Act of 1899
 - Originally targeted impediments to navigation
 - Criminalized “any refuse matter of any kind or description whatever” over than street flow
 - Required permit from U.S. Army
 - Qui tam provision
 - Sparked federal Clean Water Act in 1972. Still in force.



Federal Clean Water Act

- Passed in 1972, and amended in 1977
- Key concepts:
 - Set an ambitious national goal: elimination of pollutant discharges into navigable waters by 1985
 - Primary tools:
 - Water Quality Standards
 - Wastewater Treatment Standards + Permits for Discharges
 - Wastewater Treatment Financing
 - Water quality, not supply.



Sources of Pollution

- Direct – discharge from pipe, outfall or ditch at facility
- Indirect – routed to a centralized wastewater treatment facility
- Storm water and sewer discharges
- Non-point source pollution



Federal Clean Water Act – Key concepts

- **NPDES permit system** (sections 301, 402)
 - Required for any discharge of a pollutant from a point source into navigable waters
- **Indirect discharges** – pretreatment orders
- **Discharge standards** set by technology limits provided for entire industry sector (sections 301, 306, 307) (NSPS, toxics)
- **Total Maximum Daily Load** standards for water quality attainment (section 303d)
- Dredge and Fill (section 404) (**wetlands**)

Federal Clean Water Act - implementation



- State delegation for implementation and enforcement, with EPA oversight
- Citizen suits (section 505)
- Nonpoint source pollution planning requirements



Federal Clean Water Act – other laws

- Other federal laws:
 - Oil Pollution Act of 1990
 - Ocean Dumping Act
 - Coastal Zone Management Act
- State laws – extremely important additional source of pollution control obligations

Federal Clean Water Act - results



- Much cleaner waterways in the United States
 - Discharge of organic wastes from POTWs reduced by almost half
 - Industry discharges of organic wastes down 98 percent
 - Rate of wetlands loss declined by 90 percent since 1970s
- But many water quality issues remain

Federal Clean Water Act – remaining challenges



- Data shortage
 - Only 28% of US rivers and streams assessed, and 53% impaired
- TMDL process for water quality attainment
- Nonpoint source regulation (including air deposition)
- Interplay of water supply and water quality

Federal Clean Water Act - Jurisdiction



The term “navigable waters” means the waters of the United States, including the territorial seas.

(CWA section 502(7))



- Katy Prairie
- 1,000 sq miles
- Major migratory bird flyway
- “Prairie Potholes”



Thoughts or reactions?

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